WE CLAIM:

1.   A home automation control system comprising:

a plurality of control panels;

a communication network coupling the plurality of control panels;

5   a plurality of controlled devices wherein each controlled device implements an interface for communicating control messages;

processes implemented within the plurality of control panels operable to generate command messages relevant to at least one of the controlled devices; and

processes implemented within the plurality of control panels operable to

10   handle status messages relevant to at least one of the controlled devices.

2.   The home automation control system of claim 1 wherein at least one controlled device is directly coupled to one of the plurality of control panels.

3.   The home automation control system of claim 1 further comprising a process executing in at least one of the plurality of control panels operable to receive a message from the packet communication network, interpret the message.

4.   The home automation control system of claim 1 wherein at least one of the plurality of controlled devices comprises a subsystem that implements a device specify signaling protocol with one or more other controlled devices.

5.   The home automation control system of claim 1 wherein the plurality of control panels implement a plug-in framework that enables addition of plug-in software modules to define functionality.

6.   The automation control system of claim 1 wherein the plurality of control panels each implement a set of plug-in software components independently of a set of plug-in software components implemented in any other of the control panels.

7.   The home automation control system of claim 7 wherein the plug-in framework comprises a web server to support a web browser graphical user interface.

8.   The home automation control system of claim 7 wherein the framework provides interfaces to hardware platform drivers accessing hardware features of the control panel.

9.   The home automation control system of claim 7 wherein control panel implements a Macromedia Flash graphical environment and the framework provides interfaces to the Macromedia Flash graphical environment.

10.   A control unit for a home automation system, the control unit comprising:

a processor;

memory coupled to the processor for storing data and programmed
5   instructions;

a communication interface configured to coupled to external control subsystems;

a network interface configured to couple to other control units and exchange control messages with the other control units;

10   a plug-in framework executing on the processor; and

a plurality of plug-in applications coupled with the plug-in framework and operable to perform specific functions related to generating and responding to home control messages using the serial communication interface and network interface.

11.   The control unit of claim 10 further comprising a built in library of platform drivers, wherein each platform driver implements specific functionality for controlling hardware on the home control unit.

12   The control unit of claim 10 further comprising discovery processes implemented in the processor, where the discovery processes interrogate other control systems and subsystem to learn device-specific signaling protocols for communicating control information with the interrogated systems and subsystems.

5   13.   An automation system comprising:

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a plurality of control subsystems where at least some of the subsystems have disparate command interfaces;

a control unit implementing a plurality of interfaces for communicating with each of the disparate command interfaces; and

10 a common user interface in the control unit for processing user commands related to each of the plurality of control systems.

14. An automation and control system comprising:

a plurality of network connected nodes each implementing interfaces for handling control message communication; and

15 at least one message broker is coupled to receive control messages and direct received control messages to a selected node.

15. The automation and control system of claim 14 wherein the selected node is selected based on that node's ability to handle the command message.

16. The automation and control system of claim 14 wherein the selected node is selected based on current context information related to the nodes such that

5 commands are routed based upon the context of a node sending the control message and/or context of a node selected to implement the command message.

17 The automation and control system of claim 14 wherein the control messages include command messages and status messages.

18. The automation and control system of claim 14 further comprising a virtual control unit comprising computing devices configured to implement the common user interface, and communication resources configured to communicate user commands to the control unit for execution.

5 19. A control panel for a home automation system, the control unit comprising:

processing resources for executing programmed instructions;

server processes executing on the processing resources; and

application processes executing on the processing resources.

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